

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the Matter of the Petition of)
the California Department of)
Fish and Game for Review of Order)
Nos. 75-9 (NPDES Permit No.)
CA0104710), 75-10 (NPDES Permit)
No. CA0104434), and 75-11 (NPDES)
Permit No. CA0104701) of the)
California Regional Water Quality)
Control Board, Colorado River Basin)
Region.)

Order No. WQ 75-23

BY BOARD VICE CHAIRMAN MAUGHAN:

On March 13, 1975, the California Department of Fish and Game (petitioner) petitioned the State Water Resources Control Board (State Board) for review of Order No. 75-9 (NPDES Permit No. CA0104710), Order No. 75-10 (NPDES Permit No. CA0104434), and Order No. 75-11 (NPDES Permit No. CA0104701) of the California Regional Water Quality Control Board, Colorado River Basin Region (Regional Board). Order Nos. 75-9, 75-10, and 75-11 were adopted on February 13, 1975, and prescribe waste discharge requirements for the Palo Verde Irrigation District, Imperial Valley Irrigation District, and Coachella Valley County Water District, respectively.

On June 23, 1975, the State Board held a hearing for the purpose of receiving evidence relative to the appropriateness and propriety of adoption of Order Nos. 75-9, 75-10, and 75-11 by the Regional Board.

I. BACKGROUND

The Palo Verde Irrigation District (PVID), Imperial Valley Irrigation District (IVID), and the Coachella Valley County Water

District (CVCWD), are located in the southern portion of California in Riverside and Imperial Counties. Due to the relatively high salinity of Colorado River waters, the three districts have extensive drainage systems to carry away the volume of saline water required to keep the soil water salinity at acceptable levels for farming. The PVID has approximately 87,900 acres of land under irrigation adjacent to the Colorado River in the vicinity of the City of Blythe. About 460,000 acre-feet per year of irrigation return flows are discharged from the District to the Colorado River. The IVID contains approximately 500,000 acres of irrigated lands beginning at the southern end of the Salton Sea and extending to the International Border. The Salton Sea receives about 1.2 million acre-feet per year irrigation return flow discharges from the District, primarily via the New and Alamo Rivers. Approximately 55,000 acres of land are under irrigation in the CVCWD. These lands are located at the northern end of the Salton Sea and the vicinity of the City of Indio. Irrigation return flow discharges of approximately 150,000 acre-feet per year find their way to the Salton Sea.

Because of the special character of agricultural waste discharges, issuance of NPDES permits for agricultural discharges is being handled differently than municipal and industrial point sources. Under federal and state laws, waste discharge requirements for industrial and municipal point source discharges must require compliance with the effluent limitations contained in Section 301 of the Federal Water Pollution Control Act. A clear definition of the Section 301 effluent limitations applicable to irrigated agriculture has not been formulated. Such a regulation is very difficult to develop because of the diversity of practices, soils, and climates, and because the technical solutions to irrigation return flow problems will probably involve water management rather than application of the more traditional treatment processes.

Realizing this problem, the State Board, early in 1974, requested its Agricultural Water Quality Advisory Committee to assist the Board in developing a program for control of irrigation return flows. This advisory committee is composed of prominent agricultural and environmental leaders and was constituted to provide advice and guidance to the State Board. This committee presented recommendations to the State Board in September 1974. This recommended program consisted of permitting interrelated dischargers to file one report of waste discharge for their various discharges, waste discharge requirements for a two-year limitation, and initial waste discharge requirements requiring monitoring programs to provide a data base upon which more informed judgments may be made in the future. The committee's recommendations concerning the monitoring program included:

(a) Irrigation return flow parameters to be monitored should initially include specific conductance, suspended solids, and flow rate of the discharge.

(b) Other parameters should be studied or monitored at certain locations where such constituents are suspected to cause a problem.

(c) Data on the quality of water supplies should be determined.

(d) Method, location, and frequency of measurements should be subject to approval of the Regional Boards.

On November 4, 1974, the Regional Board transmitted a copy of the proposed NPDES permits for the three districts to all interested persons for review and comment. In a letter dated November 22, 1974, the petitioner concurred with the proposed sampling locations and

indicated that the monitoring sample frequency was minimally acceptable. In addition, the petitioner strongly urged that either selected pesticides and heavy metals be monitored or that a live car, in situ bioassay program be established. An in situ bioassay would consist of suspending test fish in the agricultural drains at selected locations and observing the response of those test fish.

On February 13, 1975, the Regional Board held a public hearing for consideration of the adoption of NPDES permits for the three districts. A representative for the petitioner presented a statement at the hearing. The petitioner's statement indicated acceptance of the locations of sampling stations for monitoring, but stated the total number and sampling frequency for each was grossly inadequate. The statement urged the Regional Board to require the dischargers to sample for toxic substances or conduct in situ bioassays and also suggested inclusion of monitoring for un-ionized ammonia. The Regional Board adopted the permits without the modifications suggested by the petitioner.

On March 13, 1975, the petitioner petitioned the State Board for review and revision of the NPDES permits in question. Attachment I presents pertinent information contained in the proposed draft permits, the adopted permits, and the suggestions of the petitioner included in its letter of March 13, 1975.

On June 23, 1975, a public hearing was held relative to this matter as requested by the petitioner. In reviewing the entire record, it is clear that the petitioner favors the suggested alternative regarding establishment of a live car in situ bioassay monitoring program over its other alternatives.

II. CONTENTIONS AND FINDINGS

A. Contentions:

The petitioner generally alleges that the action of the Regional Board in adopting Order Nos. 75-9, 75-10, and 75-11 was improper because the orders ignore needed monitoring of toxicants proven to be in irrigation return flows and demonstrated to be deleterious to fish and wildlife and their use.

More specifically, the contentions of the petitioner are: (1) the orders fail to recognize the presence or provide adequate monitoring of extremely toxic constituents which have been proven to be in irrigation return flow discharged to State waters; (2) the sampling regime proposed in the orders to gather baseline information necessary for establishment of future requirements is inadequate; and (3) the orders fail to consider fully a recognized major beneficial use of waters of the State.

B. Findings:

The comprehensive Basin Plans for the West Colorado River Basin (7A) and the East Colorado River Basin (7B) which include the three districts in question, were adopted by the Regional Board on April 10, 1975, and approved by the State Board on April 17, 1975. In the water quality control plan for Basin 7A, beneficial uses designated for the Coachella Valley Storm Water Channel, Alamo River, New River, and Imperial Valley Drains include noncontact recreation, warm freshwater habitat and wildlife habitat. The water quality control plan for Basin 7B designates beneficial

uses for agricultural drains to include noncontact recreation, warm freshwater habitat and wildlife habitat. Order Nos. 75-9, 75-10, and 75-11 find that the beneficial uses of water in the agricultural drains of the three districts include fish and wildlife habitation. In our opinion, the record shows that the petitioner demonstrated that the above beneficial use designations are not unfounded and that a sustaining, diverse fish and wildlife resource exists in the three areas in question.

The petitioner at the State Board hearing introduced ample evidence to clearly demonstrate that the agricultural drains contained abundant fish and wildlife resources. Indeed, the evidence presented by the petitioner illustrated that a wildlife habitat has been created as a direct result of the agricultural drains. The evidence produced by the petitioner also indicates that this resource has existed in the areas in question over a considerable period of time. However, the testimony and exhibits submitted by the petitioner, extensive as they were, indicated no specific evidence of damage to the abundant fish and wildlife resource.

While the petitioner introduced evidence that sporadic fish kills have occurred in the agricultural drains in the past as the result of on-farm spills, the petitioner offered no evidence that there are threats of reoccurrence of these problems or that the program proposed by the petitioner would serve to correct such problems. The petitioner did not submit any evidence which would indicate damage to the fish and wildlife resource as the result of more intensified farming practices and the resultant returns of agricultural drainage which have occurred over a period of time. Establishment of such trends or correlations is critical in assessing the hazards posed by any type of continuing discharge. In cases where discharges have occurred over a period of

many years, information regarding the historical response of the fish or wildlife resources is essential to sustain contentions such as those raised by the petitioner in these matters.

The petitioner's arguments relative to the presence and monitoring of extremely toxic constituents and inadequacy of the sampling regime are based primarily on material of a general nature and information pertaining to areas in other states and counties. The petitioner demonstrated that agricultural chemicals common to intensive farming operations are used in the three districts. We find no evidence in the record to indicate there exists any suggestion of abnormality in the fish and wildlife resources which would provide justification for additional monitoring to be imposed on the dischargers.

The investigations suggested by the petitioner, if the petitioner's contentions were found to be correct, would be investigations which should logically be made of all areas in the State where intensive irrigation occurs and wastewaters from such irrigation practices are returned to the surface waters of the State and, therefore, the problems suggested by the petitioner would be of statewide concern rather than solely of a local nature.

In order to determine under what condition irrigation return flows may contain wastes which have a toxic effect on fish and wildlife in the receiving waters, statewide studies may be desirable. The need and scope of such studies should be evaluated by the State Board's Agricultural Water Quality Advisory Committee. This committee has a member representing the Department of Fish and Game. The State Board request the Advisory Committee, working in coordination with the State Board and Regional Boards and other appropriate state and federal

entities to appraise the problem and report back to the State Board by March 1, 1976.

Also, the water quality control plans for Basins 7A and 7B provide that:

"The Regional Board has authorized the formation of an organization to develop and conduct studies to determine the actual aquatic and wildlife resources in the irrigation drains, and the unit benefits that may be achieved by controlling fertilizer and pesticides at various levels. The Regional Board's Executive Officer is to be the 'Director of the Study', with authorization and direction to (1) form the study organization, (2) develop a study plan for Regional Board review and concurrence, (3) expedite the approved study to the extent of available funding and manpower, and (4) submit a finalized report to the Regional Board. The study organization will include the invited participation of Imperial Irrigation District, Coachella Valley County Water District, and Palo Verde Irrigation District, State Department of Fish and Game, possibly a few farmers, and the Agricultural Commissioners, to see if some improvements can be made to discharge less ammonia to the drains."

The Regional Board should proceed, in concert with other effected persons and the State Board staff to carry out the above studies within the limits of current budgetary constraints. A progress report on the studies shall be made to the State Board by March 1, 1976.

III. CONCLUSION

After review of the entire record, and for reasons heretofore expressed, we conclude that the action of the Regional Board in adopting Order Nos. 75-9, 75-10, and 75-11 was appropriate and proper.

IV. ORDER

IT IS HEREBY ORDERED THAT:

1. The petition of the California Department of Fish and Game for review of Order Nos. 75-9, 75-10, and 75-11 is denied.

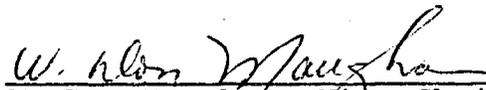
2. The State Board request the Agricultural Water Quality Advisory Committee, working in coordination with the State and Regional Boards and other appropriate state and federal entities to determine the need for and the scope of studies necessary to determine if irrigation return flows contain wastes which have a toxic effect on fish and wildlife in the receiving waters and will report back to the State Board by March 1, 1976.

3. The Regional Board should, in concert with other affected areas and the State Board staff, proceed to carry out the study organization and study plan for the study proposed in the water quality control plans for Basins 7A and 7B within the limits of current budgetary constraints. A progress report on the studies shall be made to the State Board by March 1, 1976.

Dated: **AUG 21 1975**



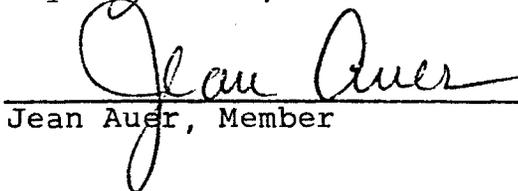
W. W. Adams, Chairman



W. Don Maughan, Vice Chairman



Roy E. Dodson, Member



Jean Auer, Member